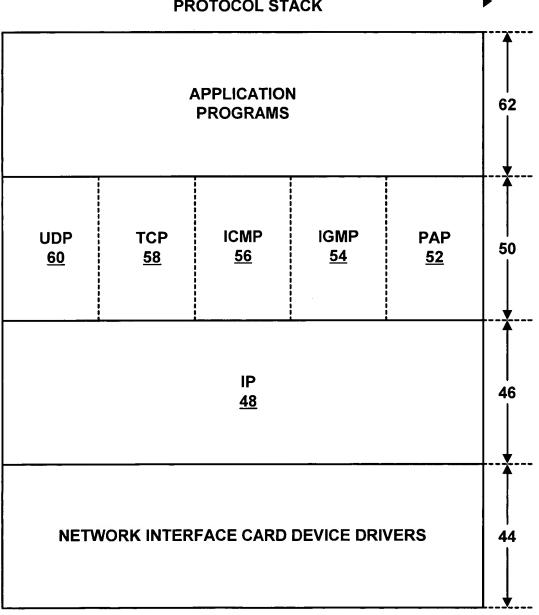


FIG. 2
PROTOCOL STACK



SUBCLASS

DRAFTSMAN

FIG. 3

PORT ALLOCATION PROTOCOL (PAP)

PAP REQUEST MESSAGE

PAP SECURITY REQUEST MESSAGE

PAP RESPONSE MESSAGE

PAP SECURITY **RESPONSE MESSAGE**

PAP INVALIDATE MESSAGE

PAP SECURITY INVALIDATE MESSAGE

COMBINATION NETWORK ADDRESS (COMMON EXTERNAL **NETWORK ADDRESS/LOCALLY UNIQUE PORT)**

64

66

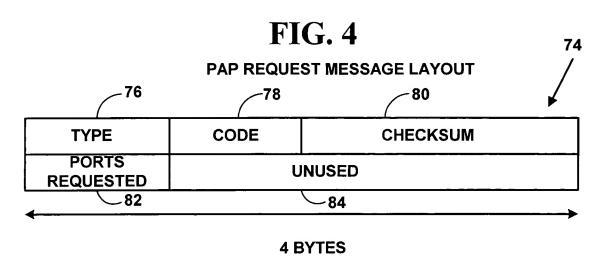
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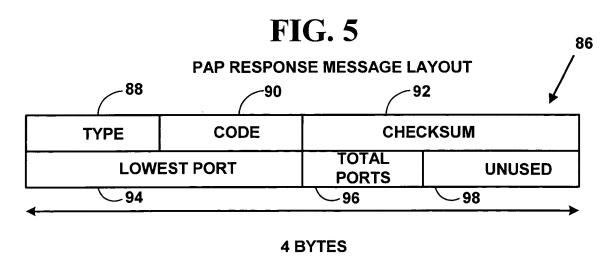
67

68

70

71





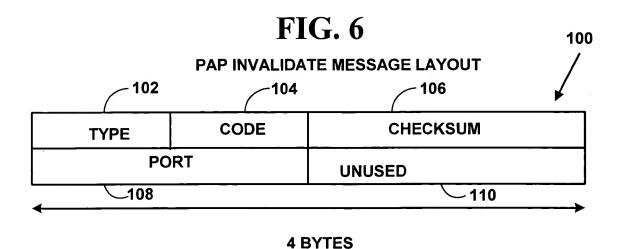
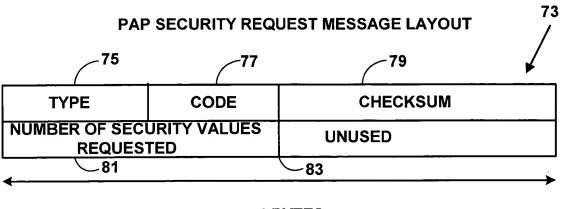
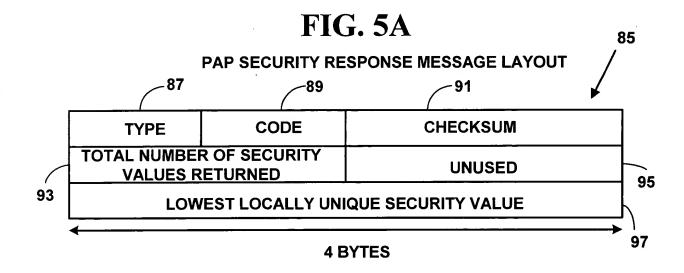
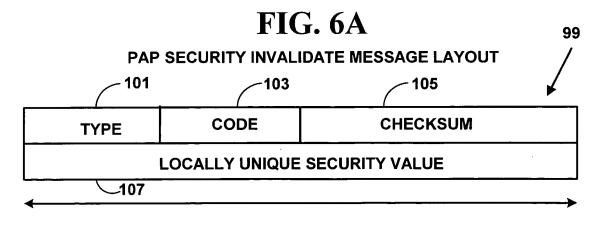


FIG. 4A

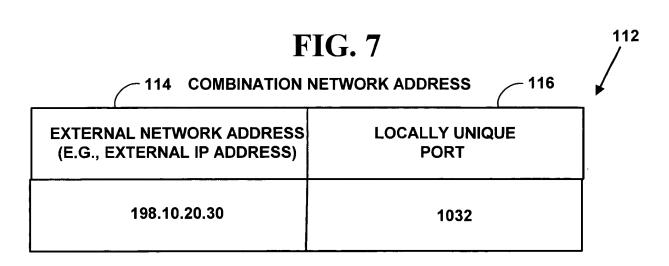


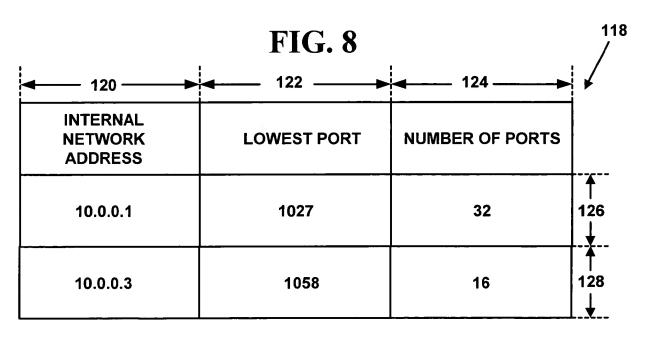
4 BYTES





4 BYTES

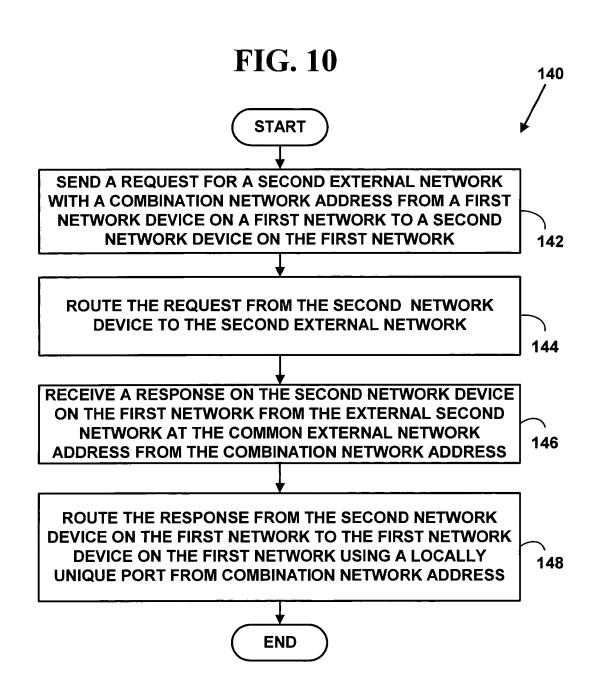




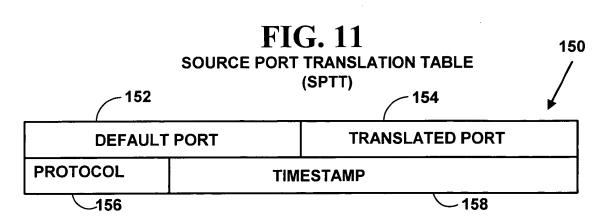
PORT-TO-INTERNAL-NETWORK ADDRESS TABLE

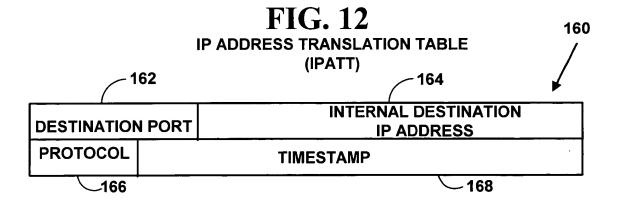
FIG. 9 130 **START** REQUEST ONE OR MORE LOCALLY UNIQUE PORTS ON A FIRST NETWORK DEVICE ON A FIRST NETWORK FROM A SECOND NETWORK DEVICE ON THE FIRST NETWORK **USING A FIRST PROTOCOL** 132 RECEIVE ONE OR MORE LOCALLY UNIQUE PORTS FROM THE SECOND NETWORK DEVICE ON THE FIRST NETWORK DEVICE USING THE FIRST PROTOCOL. 134 REPLACE ONE OR MORE DEFAULT OR EPHEMERAL PORTS IN A PROTOCOL LAYER IN A LAYERED PROTOCOL STACK 136 WITH ONE OR MORE LOCALLY UNIQUE PORTS CONSTRUCT A COMBINATION NETWORK ADDRESS USING A LOCALLY UNIQUE PORT AND A COMMON EXTERNAL **NETWORK ADDRESS FOR COMMUNICATING WITH A** 138 SECOND EXTERNAL NETWORK WITHOUT NETWORK ADDRESS TRANSLATION **END**

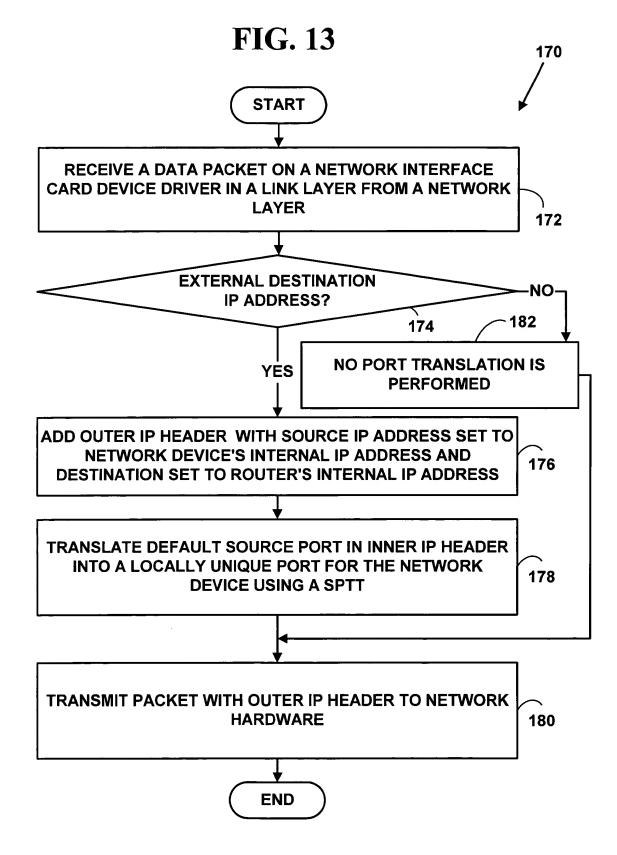
APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

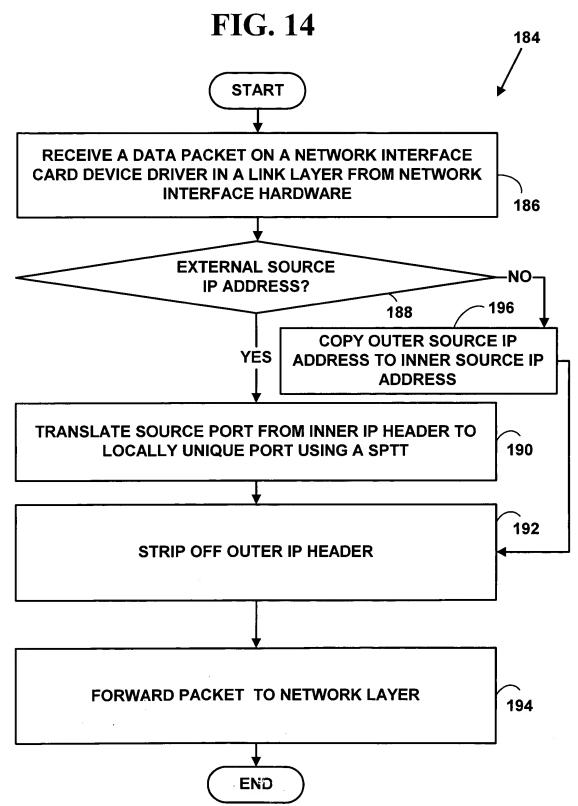


APPROVED









SUBCLASS

FIG. 15

IP HEADER FORMAT

200	

VER 202	IHL 204	TOS 206	TOTAL LENGTH <u>208</u>
IDENTIFICATION 210			FRAGMENT OFFSET 212
TIME-TO-LIVE PROTOCOL 214 216			HEADER CHECKSUM 218
SOURCE ADDRESS 220			
DESTINATION ADDRESS 222			
OPTIONS 224			

FIG. 16

AH HEADER FORMAT

226

NEXT HEADER 228	PAYLOAD LENGTH <u>230</u>	RESERVED 232	
	SECURITY PARAMETER INDEX ("SPI") 234		
SEQUENCE NUMBER FIELD 236			
AUTHENTICATION DATA 238			

OGEZOGEZ LOSLZGG

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN	1	

FIG. 17

ESP HEADER FORMAT

SECURITY PARAME 24	· ·	l")
	E NUMBER 44	
PAYLOAD DATA (VARIABLE) 246		
PADDING (VARIA	BLE)	
<u>250</u>	PAD LEN <u>252</u>	NEXT HEADER 248
AUTHENTICATION DATA 254		

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

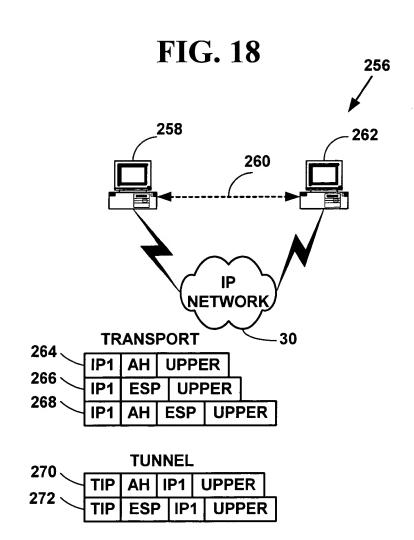


FIG. 19

SUBCLASS

DRAFTSMAN

FIG. 20

282

START

RECEIVE A REQUEST MESSAGE WITH A FIRST PROTOCOL ON A SECOND NETWORK DEVICE FOR ONE OR MORE LOCALLY UNIQUE SECURITY VALUES FROM A FIRST NETWORK DEVICE

284

ALLOCATE ONE OR MORE LOCALLY UNIQUE SECURITY VALUES ON THE SECOND NETWORK DEVICE

286

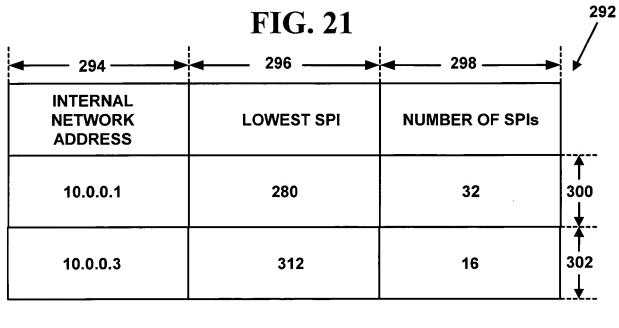
STORE A NETWORK ADDRESS FOR THE FIRST NETWORK
DEVICE FROM THE REQUEST MESSAGE IN A TABLE
ASSOCIATED WITH THE SECOND NETWORK DEVICE,
WHERE THE TABLE IS USED TO MAINTAIN A MAPPING
BETWEEN THE ONE OR MORE LOCALLY UNIQUE SECURITY
VALUES AND THE NETWORK ADDRESS FOR THE FIRST
NETWORK DEVICE FOR DISTRIBUTED NETWORK ADDRESS
TRANSLATION

288

SEND THE ONE OR MORE LOCALLY UNIQUE SECURITY VALUES TO THE FIRST NETWORK DEVICE IN A RESPONSE MESSAGE WITH THE FIRST PROTOCOL

290

END



SPI-TO-INTERNAL-NETWORK ADDRESS TABLE



START

RECEIVE A FIRST MESSAGE IN A SECOND SECURE PROTOCOL ON FIRST NETWORK DEVICE TO ESTABLISH A SECURE VIRTUAL CONNECTION TO THE FIRST NETWORK DEVICE FROM A THIRD NETWORK DEVICE ON A SECOND EXTERNAL NETWORK

322

320

SELECT A LOCALLY UNIQUE SECURITY VALUE FOR THE SECURE CONNECTION FROM A LIST OF LOCALLY UNIQUE SECURITY VALUES STORED ON THE FIRST NETWORK DEVICE

324

SEND A SECOND MESSAGE IN THE SECOND SECURE PROTOCOL FROM THE FIRST NETWORK DEVICE TO ESTABLISH A SECURE VIRTUAL CONNECTION TO THE FIRST NETWORK DEVICE FROM THE THIRD NETWORK DEVICE, WHERE THE SECOND MESSAGE INCLUDES THE LOCALLY UNIQUE SECURITY VALUE AND A SECURITY CERTIFICATE SENT TO THE FIRST NETWORK DEVICE FROM THE SECOND NETWORK DEVICE

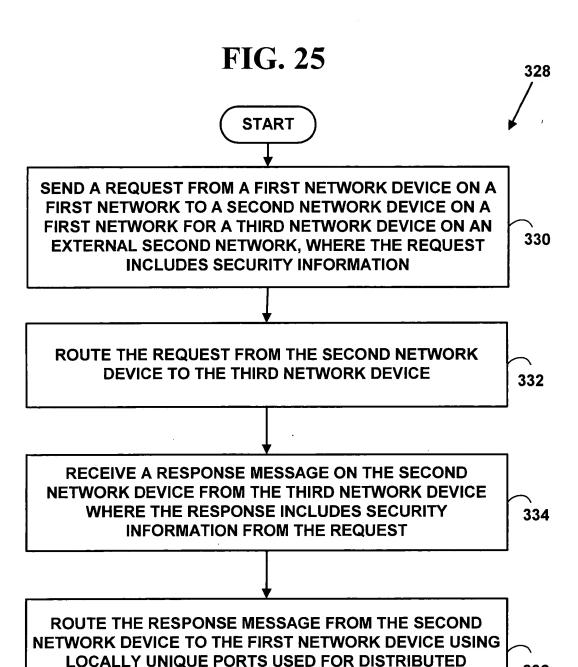
326

END

OSEVOSEV OSLVOS

N





NETWORK ADDRESS TRANSLATION

END